

Figure 5 is a block diagram of a SIC for control applications according to the present invention."

with:

--Figure 5 is a block diagram of a SIC for control applications according to the present invention.

Figure 6 is a block diagram of a SIC for data communications according to the present invention.--

**In the Claims:**

**Please cancel claim 4.**

**Please amend claim 1 as follows:**

1. (Amended) A local area network for data communication, sensing, and control comprising a plurality of serial intelligent cells interconnected exclusively by electrically-conducting media into at least one communicating pair, wherein:

- (a) each of said electrically-conducting media interconnects no more than two of said serial intelligent cells;
- (b) each of said at least one communicating pair includes one of said electrically-conducting media and exactly two of said serial intelligent cells;
- (c) each of said at least one communicating pair engages in a communication exclusively over said electrically-conducting media;

and